

FIRST RECORD OF *PELOPHYLAX KURTMUELLERI* PREYING ON *HYLA ARBOREA* IN GREECE

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Abstract

The observation of a *Pelophylax kurtmuelleri* (Gayda, 1940) feeding on a *Hyla arborea* (Linnaeus, 1758) is reported. This is the first record of this behavior from Greece.

Key words: feeding behavior, Greece, *Hyla arborea*, *Pelophylax kurtmuelleri*.

Pelophylax kurtmuelleri, the Balkan Water Frog, is a native species of the Balkans, distributed from the western part of the peninsula through to southern Greece, while introduced populations have been recorded in Denmark, Switzerland, France and Italy (Dufresnes 2019). *P. kurtmuelleri* inhabits various habitats across their Greek territory (e.g. flowing streams, ponds, lakes, rivers, marshes, etc.) and can be found from sea level up to 1000 m elevation (Valakos et al 2008). In addition to their well-studied distribution range, little is known for their natural history and few observations are published (Plitsi et al 2016, Jablonski & Tzoras 2019). Herein, we present an anurophagy behaviour of this species.



Fig. 1. Adult *Pelophylax kurtmuelleri* preying on *Hyla arborea* in the National Park of Kotychi-Strophylia Wetlands, in southern Greece.

During an amphibian survey at Kotychi-Strophylia National Park at the northwestern part of Peloponnese peninsula (38.132° N; 21.385° E), we encountered a large *P. kurtmuelleri* having in its mouth an adult *Hyla arborea* (Fig.1). The Balkan Water Frog was in very shallow water, about 5cm deep, in an open grass field surrounded by seasonal ponds, where many *Hyla arborea* were calling and mating, with many couples in amplexus. The *H. arborea* was found having the two back legs outside the mouth of *P. kurtmuelleri*, still moving slowly and grasping vegetation nearby.

Pelophylax kurtmuelleri feeding on *Hyla arborea*

We first found the animals at 23:15 h (2 February 2019) and watched until the European Tree Frog was completely swallowed at 00:22 h (3 February 2019) which is 1 hour and 7 minutes later. *P. kurtmuelleri* was using its eyes every time it was swallowing with the eye-bulbs pressing the roof of the mouth. There were many minutes of inactivity where only the victim was weakly moving its legs, and very few swallowing bouts in total. Near these two individuals, many adult *P. kurtmuelleri* and *P. epeiroticus* were also observed. This observation was made under rainy weather at 15.3°C air temperature and 13.3°C water temperature.

Frogs of the genus *Pelophylax* are opportunistic feeders and eat almost whatever they can find in their habitat (Covaciu-Marcov et al 2005, Çiçek and Mermer 2007). Depending on availability and opportunity, they will catch whatever they can but most of their diet consists of insects, arachnids, isopods and snails (Çiçek & Mermer 2007, Plitsi et al 2016, Pafilis et al 2019). Although similar anurophagy incident has been reported from this genus, this record should be the first documented event of a *P. kurtmuelleri* preying on *H. arborea*, and in general, to predate a terrestrial phase amphibian.

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